

What is claimed is:

[Claim 1] 1. A video image capturing and displaying method for a web camera and, comprising the steps of:

capturing a video image consisting of a time series of image frame, each image frame comprising a plurality of sequential lines of pixels;
compressing the video image with one of at least a first compressing mode and a second compressing mode for each basic compression unit;
storing the compressed video image in a buffer;
decompressing the compressed video image stored in the buffer corresponding to the compressing mode; and
displaying the video image based on the decompressed video image.

[Claim 2] 2. The video image capturing and displaying method of claim 1, wherein the compression ratios of the compressing modes range from $1/2$ to $1/5$.

[Claim 3] 3. The video image capturing and displaying method of claim 1, wherein the compression mode adopted in the compressing step is selected from the group consisting of differential pulse coded modulation, wavelet compression, and discrete cosine translation.

[Claim 4] 4. The video image capturing and displaying method of claim 1, wherein the basic compression unit is one sequential line of pixel.

[Claim 5] 5. The video image capturing and displaying method of claim 1, wherein the step of compressing the captured video image further comprising a mode of skipping a specific sequential line.

[Claim 6] 6. The video image capturing and displaying method of claim 1, wherein the step of compressing the captured video image further comprising a mode of processing a specific sequential line without compression.

[Claim 7] 7. A video image capturing and displaying system comprising:
an imaging module for capturing a video image consisting of a time series of image frames, each image frame comprising a plurality of sequential lines of pixels;
a video image compressing module comprising at least a first compressing engine and a second compressing engine, for compressing the captured video image;
a buffer controller for actuating one of at least the first compressing engine and the second compressing engine for compressing each sequential line as the basic compression unit;
a buffer for storing the compressed video image;
a decompressing module for decompressing the compressed video image stored in the buffer corresponding to the compressing engine; and
a display for displaying the decompressed video image.